DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

99.28 File #:

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019317 Address: 333 Burma Road **Date Inspected:** 03-Jan-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr. Geng Wei No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG** Segment

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 008026

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment. The weld designations reviewed are as follows:

- 1. SEG3007H-003
- 2. SEG3007AT-056

Ultrasonic Testing (UT) – NWIT Document No: 008029

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment. The weld designations reviewed are as follows:

1. DP3094-001-076

Magnetic Particle Testing (MT) – NWIT Document No's: 008032

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This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Segment. The weld designations reviewed are as follows:

- 1. SA3168-061, 062, 063, 064, 065, 066, 067, 068
- 2. SA3168-347, 348, 349, 350
- 3. SEG3013M-051
- 4. SEG3013Q-147, 152, 157

Bay 14

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) welding of weld joint SEG3020D-063 located on Floor Beam to Longitudinal Diaphragm of the OBG Segment 14W. ZPMC Welder is identified as 066239. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231-ESAB.

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3020Q-058 located on Longitudinal Diaphragm to Floor Beam corner joint of OBG Segment 14W. ZPMC Welder is identified as 066038. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – FCM – Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2622.

SMAW repair welding of weld joint SEG3020R-033 located on Longitudinal Diaphragm to Floor Beam corner joint of OBG Segment 14W. ZPMC Welder is identified as 051348. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – FCM – Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2621.

FCAW welding of weld joint SEG3020D-063 located on Floor Beam to Longitudinal Diaphragm of the OBG Segment 14W. ZPMC Welder is identified as 066239. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2131-ESAB.

FCAW welding of weld joint SEG3020BB-073 located on Sub Assembly to Bottom Plate of the OBG Segment 14W. ZPMC Welder is identified as 066236. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2232-ESAB.

FCAW welding of weld joint SEG3020BB-055 located on Sub Assembly to Bottom Plate of the OBG Segment 14W. ZPMC Welder is identified as 066695. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2232-ESAB.

FCAW welding of weld joint SEG3020BB-001 located on Sub Assembly to Bottom Plate of the OBG Segment 14W. ZPMC Welder is identified as 068445. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin.

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The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2232-ESAB.

FCAW welding of weld joint SEG3020Y-079, 080 located on Longitudinal Diaphragm to Floor Beam of the OBG Segment 14W. ZPMC Welder is identified as 047866. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2233-ESAB.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Vibin	Quality Assurance Inspector
Reviewed By:	Patel, Hiranch	QA Reviewer